

8. (Twice Amended) An optical film of light transparent material including a first surface having an optically rough structure for diffuse-transmitting incident light and a second surface having a wave structure including a plurality of isosceles triangle prisms arranged side-by-side, the prisms having smooth surfaces for refracting said light diffuse-transmitted from said first surface and directionally distributing said diffuse-transmitted light through said second surface for increasing illumination within a viewing angle of about 35 degrees in the vertical direction and about 55 degrees in the horizontal direction wherein a top angle of said isosceles triangle prisms is a range of about 90 degrees to about 120 degrees.

9. (Twice Amended) An optical film of light transparent material including a first surface having an optically rough structure for diffuse-transmitting incident light and a second surface having a wave structure including a plurality of isosceles triangle prisms arranged side-by-side, the prisms having smooth surfaces for refracting said light diffuse-transmitted from said first surface and directionally distributing said diffuse-transmitted light through said second surface wherein a top angle of said isosceles triangle prisms is a range of about 90 degrees to about 120 degrees, wherein the tops of the isosceles triangle prisms are no more than 160 μ m apart.

13. (Amended) A liquid crystal display device including a liquid crystal display panel and a back light device, said back light device comprising:
a light source for emitting light;

a light guide having a top surface facing a back surface of said display panel and a side surface receiving said light from said light source;

a reflector provided on a back surface of said light guide;

and

an optical film of light transparent material positioned between said back surface of said liquid crystal display panel and said top surface of said light guide, said optical film including a first surface having an optically rough structure for diffuse-transmitting said light from said light guide and a second surface having a wave structure including a plurality of isosceles triangle prisms arranged side-by-side, the prisms having smooth surfaces for refracting said light diffuse-transmitted from said first surface to gather light passing through said second surface in a direction toward said display panel, wherein a top angle of said isosceles triangle prisms of said optical film is in a range of about 90 degrees to about 120 degrees for flat, angle prism surfaces to gather light from the diffuse transmission and directionally distribute said light within a range defined by a given angle.

20. (Amended) An optical film for use in a liquid crystal display having a front portion and a back portion, said optical film comprising:

diffusing means for diffuse-transmitting light illuminated proximal to said back portion of said display; and

refracting means including a plurality of isosceles triangle prisms arranged side-by-side for directionally distributing said diffuse-transmitted light toward said front portion of said display and for increasing luminance of light within a viewing angle of about 35 degrees in the vertical direction and about 55 degrees in the horizontal direction of said front portion of said display, wherein a top angle of said isosceles triangle prisms is in a range of about 90 degrees to about 120 degrees.